Docket No. 742113-33

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Patent Application of	)
Carsten HERMANSEN et al.	) Art Unit 3724
Application No. 10/523,924	) Examiner Clark F. Dexter
Filing Date: March 28, 2005	) Confirmation No. 1913
For: DEVICE AND METHOD FOR THROUGH-CUTTING OF AN EXTRUDED ICE MASS	)

PETITION UNDER 37 CFR 1.181

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants hereby petition the Director for review of the Examiner's objection to the Drawings contained in the Office Action issued, June 1, 2009, in connection with the above-captioned patent application.

Facts

The Examiner has objected to the for failing to show the claimed structure to simultaneously drive the knives and to provide the knives with different stroke lengths (claim 1) and more specifically, the rotor means, coupling means and drive means (claim 5). However, as the Examiner was advised, the second gear mechanism 14 used by the present applicants and disclosed in this application was derived from a text book relating to the field of lever mechanisms, i.e., *MECHANISMS in Modern Engineering Design, Volume I: Lever Mechanisms* by Ivan I. Arobolevsky, D.Sc. (Eng.), Mir Publishers, Moscow, 1975 (hereafter, "Modern Engineering"), a copy of title pages and pages 512, 513 having been provided to the Examiner and a copy being submitted herewith as well. Thus, this publication provides evidence of that which was well-known to those skilled in the art well prior to the present invention and demonstrates that the drawings on file, in fact, show the claimed invention.

In particular, it can be seen that the knife driving arrangement shown in Fig. 5 is comprised of a first gear mechanism 15 that is a simple eccentric crank mechanism the operation of which is very basic and is well known to even basic engineering students and a second gear mechanism 14. The second gear mechanism 14 is a "long-dwell mechanism" as is shown and described at the top of page 513 of the Modern Engineering reference and the second knife 5 of Fig. 5 is connected to a lever that corresponds to "link 4" of Modern Engineering figure. As described in Modern Engineering, the second knife 5 would have a dwell at its most extended position which is approximately equal to a half-revolution of the crank part of the second gear mechanism 4.

More specifically, when the rotor means 10 of the present invention drives the crank parts of the first and second gear mechanisms 15, 14, simultaneously, as indicated in Fig. 3, the first and second knives 4, 5, are caused to be reciprocated simultaneously as required by claims 1-5 and as described in paragraph [0027]. After an initial motion of the two knives relative to each other, due to the dwell produced by the second gear mechanism 14, the second knife 5 will virtually stop while the first knife 4 continues its reciprocating motion and cuts the ice slice after which both knives return to their initial positions.

Therefore, the drawings do, in fact, illustrate the claimed subject matter to the extent required by 37 CFR 1.83(a) and that Figs. 4 & 5 actually show a level of detail beyond that required for structure of such a simple mechanical type that uses known drive principals.

Action Requested

On the basis of the foregoing, the Director is requested to grant this petition and cause the drawing objection to be withdrawn. Additionally, since this application is under rejection with a time period for response running and since the course of action to be pursued in response to outstanding Office Action is in part dependent on the outcome of this petition, there being no outstanding prior art rejections, prompt action on this petition is requested.

Respectfully submitted,

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Артоболевский И. И.

Механизмы
в современной
технике

Том
I

ИЗДАТЕЛЬСТВО «НАУКА»
МОСКВА

MECHANISMS in Modern Engineering Design

A Handbook
for Engineers,
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by IVAN I. ARTOBOLEVSKY, D. Sc. (Eng.)
Member, USSR Academy of Sciences

Volume
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Lever Mechanisms

Translated
from the Russian
by Nicholas Weinstein

MIR PUBLISHERS MOSCOW

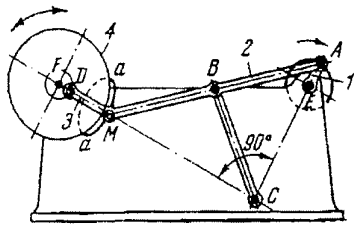
First published 1975
Second printing 1979

На английском языке

CONTENTS

756 CHEBYSHEV REVERSING AND DWELL MECHANISM

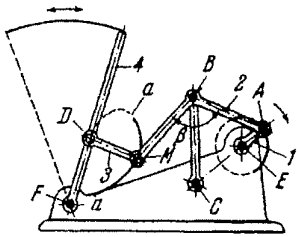
LW D



The lengths of the links comply with the conditions: $\overline{AB} = \overline{CB} = \overline{BM} = 1$, $\overline{EA} = 0.19$, $\overline{CE} = 1.11$, $\overline{MD} = 0.403$, $\overline{FD} = 0.12$ and $\overline{CF} = 2.05$. Point M of connecting rod *2* in four-bar linkage $EABC$ describes connecting-rod curve a-a of which the portion shown by a heavy continuous line approximates a circular arc of radius $\overline{DM}$ with its centre at point D. When point M travels along this portion, link *4*, designed as a flywheel, remains almost stationary, i.e. it practically has a dwell. At one of the extreme positions (dead points) of the mechanism (shown in the drawing), points F, D and M lie on a single straight line. From this position, flywheel *4* can begin rotating either clockwise or counterclockwise. Consequently, one revolution of crank *1* corresponds to one revolution of flywheel *4* in the same direction and with a prolonged dwell, or to one revolution in the opposite direction with no dwell.

757 CHEBYSHEV MULTIPLE-BAR LONG-DWELL MECHANISM

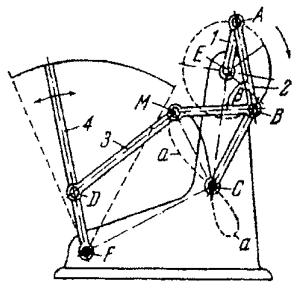
LW D



The lengths of the links comply with the conditions: $\overline{AB} = \overline{CB} = \overline{BM} = 1$, $\overline{EA} = 0.305$, $\overline{CE} = 0.76$, $\beta = 114°$, $\overline{MD} = 0.66$, $\overline{FD} = 0.8$, $\overline{CF} = 1.66$ and $\overline{EF} = 2.36$. Point M of connecting rod *2* in four-bar linkage $EABC$ describes connecting-rod curve a-a of which a certain portion, shown by a heavy continuous line, approximates a circular arc of radius $\overline{DM}$ (link *3*) with its centre at point D. When point M is on this portion of path a-a, link *4* is almost stationary, i.e. it practically has a dwell at one extreme position. The length of the dwell is approximately equal to one half-revolution of crank *1*.

758 CHEBYSHEV MULTIPLE-BAR DWELL MECHANISM

LW D



The lengths of the links comply with the conditions: $\overline{AB} = \overline{CB} = \overline{BM} = 1$, $\overline{EA} = 0.54$, $\overline{CE} = 1.3$, $\beta = 80°$, $\overline{MD} = 1.603$, $\overline{FD} = 0.695$, $\overline{CF} = 1.8$ and $\overline{EF} = 2.78$. Point M of connecting rod *2* in four-bar linkage $EABC$ describes connecting-rod curve a-a which is self-intersecting at point C. The portion of this curve shown by a heavy continuous line approximates a circular arc of radius $\overline{DM}$ with its centre at point D. When point M is on this portion of path a-a, link *4* is almost stationary, i.e. it practically has a dwell at a certain intermediate position. The return stroke of link *4* has no dwell.